

IN THE CLAIMS:

1 1. (Original) A manufacturing method for an electronic device, comprising:
2 a hole-forming step of forming a contact hole in an insulating film that covers a
3 conductive part formed on a first main surface of a substrate and an area surrounding the
4 conductive part, the hole being formed beside the conductive part, and the conductive part
5 including a first material;
6 a material-supplying step of supplying a second material to the contact hole, the
7 second material having a reactive property with the first material; and
8 an inspection step, after the second material has been supplied, of inspecting for
9 evidence of a reaction by the conductive part with the second material.

1 2. (Original) The manufacturing method of Claim 1, wherein
2 the reactive property of the second material causes the conductive part to be
3 eroded on contact with the second material, and
4 in the inspection step, evidence that the conductive part has been eroded is
5 inspected for.

1 3. (Original) The manufacturing method of Claim 2, wherein
2 in the inspection step, evidence of erosion is inspected for optically.

1 4. (Original) The manufacturing method of Claim 3, wherein
2 in the inspection step, evidence of erosion is inspected for after removing the
3 second material from the contact hole.

1 5. (Original) The manufacturing method of Claim 4, wherein
2 the first material is one of tungsten and a tungsten alloy, and
3 the second material is a solution including one of hydrogen peroxide and ozone.

1 6. (Original) The manufacturing method of Claim 5, wherein
2 in the material-supplying step, the solution is supplied to the contact hole under a
3 condition by which the solution is able to selectively erode the conductive part.

1 7. (Original) The manufacturing method of Claim 1, wherein
2 the electronic device is a memory device that includes a plurality of components
3 that function as field effect transistors, and
4 the conductive part is a function electrode that is formed before the hole-forming
5 step by applying a design rule that stipulates an electrode width of 0.18 μ m or less.

1 8. (Original) The manufacturing method of Claim 3, wherein
2 the conductive part includes a large-area portion that is sufficient in size to enable
3 inspection thereof with an optical microscope for evidence of the reaction, and
4 in the inspection step, evidence of the reaction in the large-area portion is
5 inspected for.

1 9. (Original) The manufacturing method of Claim 2, wherein
2 in the inspection step, after a material including at least the second material has
3 been removed, presence of at least one of the first material and a compound of the first material
4 and the second material is inspected for in the removed material.

1 10. (Original) The manufacturing method of Claim 1, wherein
2 the substrate has a pre-formed inspection area that is independent of other circuits
3 areas,
4 in the material-supplying step a contact hole formed in the inspection area is
5 subject to the inspection, and
6 in the inspection step, a conductive part formed in the inspection area is subject to
7 the inspection.

1 11. (Original) The manufacturing method of Claim 1, wherein
2 in the hole forming step, the contact hole is formed using a self-align contact
3 method.

1 12. (Original) The manufacturing method of Claim 11, wherein
2 a silicon nitride film is provided on the substrate as an etching stopper layer in the
3 hole forming step.

1 13. (Original) The manufacturing method of Claim 12, wherein
2 the insulating film is formed of boron phosphorus silicon glass, and
3 the first material has an etching selectivity ratio of 100 or higher in relation to
4 material that composes the etching stopper layer and material that composes the insulating film.

1 14-17. (Cancelled).

1 18. (New) An inspection method for a semiconductor member having a plurality of
2 layers of at least two different materials formed on a substrate with portions thereof selectively
3 removed to provide one of an electronic device and a pre-form thereof, comprising:

4 applying a fluid having a first characteristic property of being non-reactive to
5 those exposed layers of the plurality of layers when one of the electronic device and the pre-form
6 thereof is properly fabricated and a second characteristic of being reactive to one or more layers
7 of the plurality of layers that are not exposed when properly fabricated; and

8 detecting a fluid reaction with one or more of materials to determine a flaw in
9 fabrication of the one of the electronic device and the pre-form.

1 19. (New) The inspection method of Claim 18 wherein the step of detecting is
2 performed with a scanning electron microscope.

1 20. (New) The inspection method of Claim 18 wherein the fluid reaction erodes
2 away one or more of the different materials.

1 21. (New) The inspection method of Claim 18 wherein the fluid reaction provides an
2 eluted byproduct.